

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF WISCONSIN**

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METSO MINERALS INDUSTRIES, INC.,

Plaintiff,  
v.  
Case No. 07-CV-926

FLSMIDTH-EXCEL LLC, EXCEL FOUNDRY & MACHINE, INC.,  
JOSEPH P. MARTINEZ, CHERYL A. SULLIVAN,  
RICHARD A. PARSONS, DOUGLAS M. PARSONS,  
KENNETH L. OLSON, and CHRISTOPHER P. WADE,

Defendants.

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**ORDER**

On October 17, 2007, plaintiff, Metso Minerals Industries, Inc. (“Metso”), filed suit against FLSmidth-Excel LLC (“Excel”). In the ensuing years, Metso<sup>1</sup> filed several amended complaints, adding numerous new defendants. Throughout Metso’s numerous complaints, it has maintained that defendant FLSmidth-Excel LLC (“Excel”) infringed Metso’s U.S. Patent No. 4,750,681 (“the ‘681 patent”). Excel has raised numerous defenses to the validity and enforceability of the ‘681 patent. Excel posits that the ‘681 patent fails due to inoperability. Excel also contends that the ‘681 patent fails to meet the enablement requirement and the best mode requirement, both found in 35 U.S.C. § 112. Excel also claims that the ‘681 patent’s

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<sup>1</sup> The term “Metso” is used throughout this order to refer to Metso Minerals Industries, Inc., as well as to its predecessors in interest.

claims are invalid for obviousness under 35 U.S.C. § 103. Metso has moved for summary judgment on all<sup>2</sup> of Excel's defenses.

## **BACKGROUND**

Metso is engaged in the manufacture and sale of high performance conical rock crushers. Several of those crushers embody claims covered by the '681 patent.<sup>3</sup> Excel also is engaged in the manufacture and sale of high performance conical rock crushers. On January 30, 2008, Excel admitted that it infringed all of the valid claims of the '681 patent.

The '681 patent contains seventeen claims. Many of the claims are directed to conical rock crushers as a whole. Conical rock crushers use a motor, connected to the crusher head with a shaft and gearbox, to drive an eccentric rotating around a vertical shaft that causes a mushroom shaped head to gyrate and crush rock between the surface of the head and the interior surface of the "bowl" into which the rock is poured and inside which the head gyrates.

When there are no rocks in the crusher, it is said to be in "no load" rotation; when there are rocks in the crusher, it is referred to as being "under load." Conical crushers have various forms of "anti-spin devices" designed to slow or stop the rotation of the head while the crusher is running "no load." The reason for this is

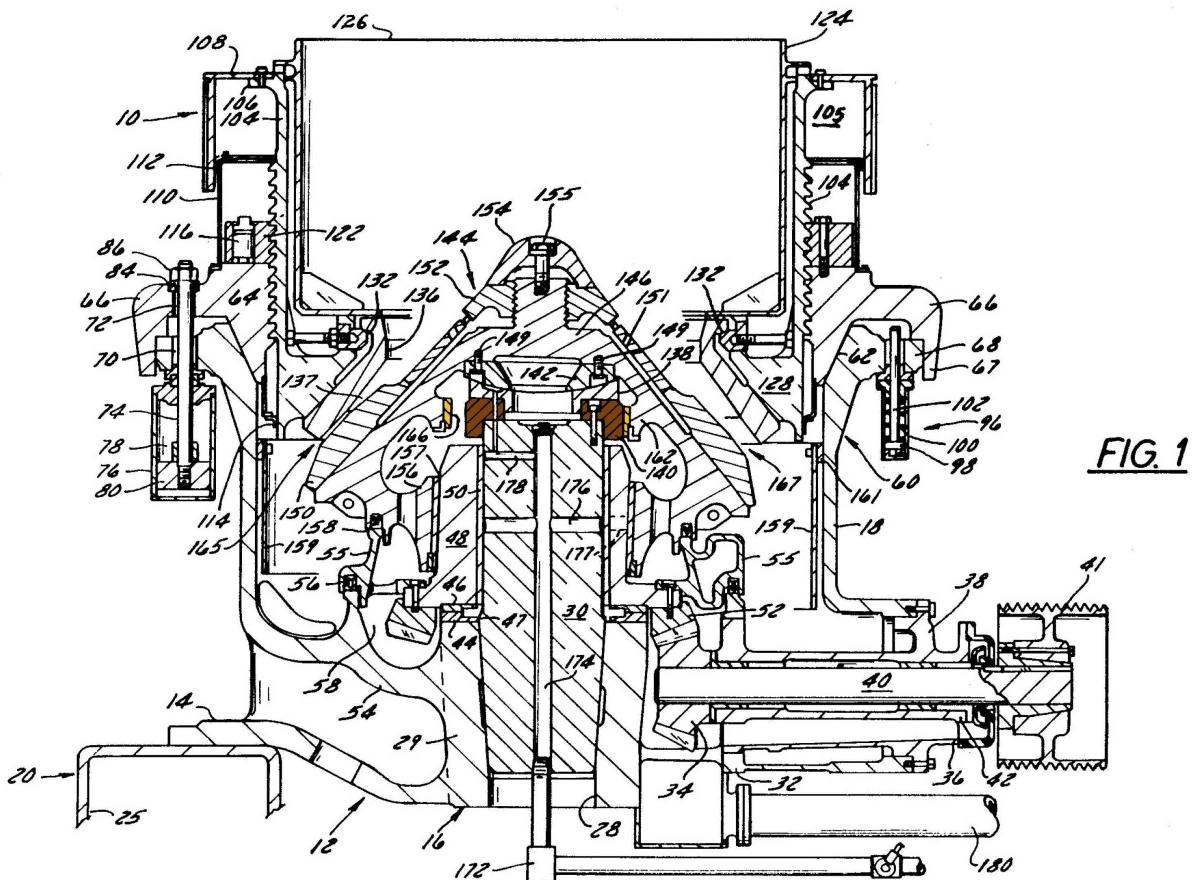
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<sup>2</sup> Excel originally claimed that the '681 patent was unenforceable due to laches, equitable estoppel, acquiescence and waiver. Metso has provided evidence and argument as to why it is entitled to summary judgment on these defenses, and Excel has not responded. Thus, Metso is entitled to summary judgment on Excel's laches, equitable estoppel, acquiescence and waiver defenses.

<sup>3</sup> The '681 patent expired on February 24, 2006; however, defendants are alleged to have infringed the patent before it expired.

because if the head is rotating too quickly during the “no load” phase, then it increases the risk that when rocks are added to the bowl, some rocks may be flung out violently as a result of the speed at which the head is rotating.

The '681 patent discloses an anti-spin device referred to as an "upper head bushing." Metso's upper head bushing (166, shown in yellow) is a ring shaped bronze bushing that fits in the under side of the mushroom shaped head. When the crusher is "under load" the head has an up-right vertical orientation, the result of which is that the bushing does not come into contact with the socket base (140, shown in brown), as depicted on the left side of Figure 1. However, when the crusher is running "no load" the head tilts, the result of which is that the bushing



contacts the socket base, as shown on the right side of Figure 1. This contact causes the head to slow while running “no load.”

## ANALYSIS

### I. Summary Judgment Standard

Summary judgment is appropriate where the movant establishes that there is no genuine issue of material fact and that it is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). “Material facts” are those facts which “might affect the outcome of the suit,” and a material fact is “genuine” if a reasonable finder of fact could find in favor of the nonmoving party. See *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). Summary judgment is appropriate where a party has failed to make “a showing sufficient to establish the existence of an element essential to that party's case and on which the party will bear the burden of proof at trial.” *Celotex*, 477 U.S. at 317. A party opposing summary judgment may not rest upon the mere allegations or denials of the adverse party's pleading, but must set forth specific facts showing that there is a genuine issue for trial. Fed. R. Civ. P. 56(e). Any doubt as to the existence of a material fact is to be resolved against the moving party. *Anderson*, 477 U.S. at 255.

“A patent is presumed valid, see 35 U.S.C. § 282 (1994), and this presumption only can be overcome by clear and convincing evidence to the contrary.” *Enzo Biochem, Inc. v. Gen-Probe, Inc.*, 424 F.3d 1276, 1281 (Fed. Cir. 2005). This means that at trial Excel will have the burden of proving its defenses by clear and convincing evidence. However, because Metso is the moving party, presently Metso has the

burden of proving that a jury, upon hearing Excel's evidence, could not reasonably find that Excel had proved its defenses by clear and convincing evidence.

## **II. Inoperability**

Excel asserts that the '681 patent is invalid because it is inoperable. Under the "utility requirement" found in 35 U.S.C. § 101, "any patentable invention [must] be useful and, accordingly, the subject matter of the claim must be operable."

*Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1358 (Fed. Cir. 1999). Specifically, Excel directs its inoperability argument at the "upper head bushing" mechanism disclosed in the '681 patent.

The starting point from which to evaluate Excel's inoperability defense is the parties' claim construction briefs. The parties disagree as to the proper construction of two portions of Claims 1 and 6 of the '681 patent. The relevant language refers to the upper head bushing. The relevant language in Claim 1 refers to the function of the bushing, and describes that it will "slow the rotation of said head during said no-load operational mode." (Joint Claim Construction Statement, [Dkt. #62] Ex. A, at 1). The relevant language in Claim 6 also refers to the bushing, which it describes as an "anti-spin apparatus." (Id. at 4). The parties proffered constructions are as follows:

<b>Metso's Construction</b>	<b>Excel's Construction</b>
<p><b>“slow the rotation of said head during said no-load operational mode”</b> means slow the rotation of the head when no material is being crushed.</p> <p><b>“anti-spin apparatus”</b> means device that slows the rotation of the head</p>	<p><b>“slow the rotation of said head during said no-load operational mode”</b> means <i>adequately</i> slow the rotation of the head when no material is being crushed.</p> <p><b>“anti-spin apparatus”</b> means device that <i>adequately</i> slows the rotation of the head.</p>

Thus, Metso contends that the claim language should be construed to mean exactly what it says it means (i.e., giving the words their ordinary plain meaning), and Excel advocates that the modifier “adequately” should be read into the claims.

In construing the language of a patent’s claims, a court’s “claim construction analysis must begin and remain centered on the claim language itself, for that is the language the patentee has chosen to ‘particularly point[ ] out and distinctly claim[ ] the subject matter which the patentee regards as his invention.’” *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004) (quoting *Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001)) (quoting 35 U.S.C. § 112 ¶ 2). The court must “accord a claim the meaning it would have to a person of ordinary skill in the art at the time of the invention.” *Innova/Pure Water*, 381 F.3d at 1116.

Metso argues that one of ordinary skill in the art would understand “slow the rotation of said head during said no-load operational mode” to mean slowing the rotation of the head when no material is being crushed. Excel argues that “slow” has

no generally understood meaning, but Excel points to no particular evidence to support this contention. The court finds that the term “slow” should be given its plain ordinary meaning, which in the context of a conical crusher would be “to reduce the rate at which the head is rotating.”

Metso does not offer argument as to what one of ordinary skill in the art would understand “anti-spin apparatus” to mean. Excel argues that there is no consensus among those of ordinary skill in the art as to what “anti-spin apparatus” means. As support, Excel offers the testimony of two of its own employees, both of whom have worked in the crusher industry for many years. One of the Excel employees, Mr. Christopher Wade, testified that he understood an anti-spin device to be a mechanism that brings the head to a complete stop, not something that merely reduces the rate at which the head rotates. (Excel Claim Construction Br. [Dkt. #80] at 9). Mr. Wade testified that he had no knowledge as to whether his understanding of an anti-spin device was consistent with the widely held understanding of what anti-spin means in the business. (Id.) The other employee, Mr. Kurt O’Bryan, testified that an anti-spin device is not one that stops the spinning of the head completely, but rather is a device that would “significantly reduce 80-90 percent of the spin.” (Id. at 10). Mr. O’Bryan stated that this definition of anti-spin was his own definition; his testimony gives no indication as to whether anyone else would agree with this definition. (Id.).

Excel argues that Mr. Wade’s and Mr. O’Bryan’s testimony shows that there is not a generally understood meaning of the term “anti-spin apparatus” among those

of ordinary skill in the art. Excel further argues that the court should thus construe the term, based on language in the patent's specifications, to mean a "device that *adequately* slows the rotation of the head." Excel's argument is that the specifications<sup>4</sup> make it clear that the whole point of the anti-spin apparatus was to prevent the violent ejection of rocks when they are poured into a crusher that is running "no load". Excel, therefore, argues that the modifier "adequately" should thus be inserted into the claim construction in order to clarify the amount of spin reduction claimed.<sup>5</sup>

Excel correctly states that courts "must always read the claims in view of the full specification." *SanDisk Corp. v. Memorex Products, Inc.*, 415 F.3d 1278, 1285 (Fed. Cir. 2005). This is to prevent the court from adopting a claim construction that "enlarge[s] what is patented beyond what the inventor has described as the invention." *Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed. Cir. 2001). However, a finding by this court that "anti-spin apparatus" means "device that slows the rotation of the head" (as opposed to "adequately slows the rotation of the head") does not enlarge the '681 patent beyond that described in the specifications. This

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<sup>4</sup> There is no reason for the court to recite the language of the specifications, because, for the purposes of this analysis, the court is drawing all inferences in favor of Excel, the non-moving party, and thus will assume that Excel's conception of the '681 patent's specifications is correct.

<sup>5</sup> Excel does not explain what amount of slowing is necessary to be considered "adequate." Under Mr. Wade's conception, only a full stop is adequate. Under Mr. O'Bryan's conception, only an 80-90 percent reduction would be adequate. Under a more reasonable conception, only the amount of reduction necessary to either eliminate or at least reduce the occurrence of rocks being violently ejected is adequate. Were the latter definition of adequate accepted, one would then have to determine how forceful of an ejection is necessary to be considered "violent" and how much do such occurrences have to be reduced by in order to be sufficient to say that the amount of slowing was "adequate." This inquiry demonstrates two things. First, "adequate" means different things to different people and in different circumstances. Second, adding the modifier "adequately" would only create confusion; it would not offer clarity.

is true even if the court adopts Excel's view that the specifications disclose claims directed solely at addressing the problem of rocks being violently flung upon introduction to a crusher operating "no load." This is because a reduction in the rate at which the head rotates when operating "no load" – even if that rate reduction is not what Excel would consider "adequate" – does address the problem of rocks being violently flung from the crusher. To the extent that Excel would argue that a less than "adequate" reduction of rotation does not solve the problem of rocks being violently ejected, this court rejects the notion that for an invention to warrant patent protection it must entirely and optimally resolve the problems it is designed to address.

It is important to recognize that the *SanDisk* court, in directing that claims be construed in light of the specifications, was addressing the issue of whether a construction that excluded preferred embodiments of the invention could be a correct construction. *SanDisk*, 415 F.3d at 1285. This court's refusal to incorporate the term "adequately" into the proffered constructions of the disputed claim terms does not exclude any of the preferred embodiments of the '681 claim. Nor is the court's construction of the disputed claim terms inconsistent with Excel's conception of the specifications. See *On Demand Machine Corp. v. Ingram Industries, Inc.*, 442 F.3d 1331, 1339-41 (rejecting construction of the term "customer" to include non-retail customers, when the specifications clearly showed that the invention was geared only to retail customers). For even if the specifications do clearly show that the purpose of the upper head bushing is to prevent the violent expulsion of rocks, to the

extent that the bushing does reduce the rate of rotation during “no load” operation, it does clearly address the problem that Excel maintains the specifications evidence it was designed to address.

It is also important to recognize that a basic rule of claim construction is that terms will ordinarily be given their full meaning, and modifiers should not be added to limit the scope of broad terms. *Virginia Panel Corp. v. MAC Panel Co.*, 133 F.3d 860, 865-66 (Fed. Cir. 1997) (unmodified term “reciprocating” not limited to linear reciprocation); *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 621-22 (Fed. Cir. 1995) (unmodified term “associating” not limited to explicit association); *Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 987, 6 U.S.P.Q.2d 1601, 1606 (Fed. Cir. 1988) (unmodified term “plasticizer” given full range of ordinary and accustomed meaning). For example, in *Acumed LLC v. Stryker Corp.*, 483 F.3d 800 (Fed. Cir. 2007) the court, in construing the term “sharp,” refused to incorporate a numerical angular limit required for “sharpness” into the term construction. *Id.* at 806. The *Acumed* court explained that “a sound claim construction need not always purge every shred of ambiguity.” *Id.*

As the court has already pointed out, inserting the modifier “adequately” would only increase the ambiguity of the disputed terms. Ultimately, there is no basis for adding the modifier “adequately” to the definitions of the disputed terms. Metso’s proffered definitions are consistent with the ordinary meaning of the terms, and are consistent with the purposes of the invention set out in the specifications, even when the court adopts Excel’s conception of the specifications. Additionally, the court’s

refusal to incorporate the term “adequately” into the definitions does not create a claim construction that excludes any preferred embodiment of the ‘681 patent.

Because the court has not adopted Excel’s proffered definition of the disputed terms found in Claims 1 and 6 of the ‘681 patent, the court is, therefore, obliged to grant Metso summary judgment on Excel’s “inoperability” defense. The entirety of that defense hinged on the court inserting the modifier “adequately” into the definitions. As the court declined to do so, there is no basis for the inoperability defense.

However, even if the court had construed the disputed terms in Claims 1 and 6 in the manner sought by Excel, the court would nonetheless be obliged to grant summary judgment to Metso on Excel’s inoperability claims. To prove its inoperability defense, Excel would have to establish at trial that “each disclosed embodiment in the patents was impossible.” *EMI Group North America, Inc. v. Cypress Semiconductor Corp.*, 268 F.3d 1342, 1349 (Fed. Cir. 2001). Simply put, Excel has not proffered any evidence capable of proving (especially clearly and convincingly) that it is impossible for the upper head bushing to “adequately” reduce the rate of rotation of the head of a conical crusher during “no load” operation.

Excel’s evidence as to the inoperability of the bushing consists of the testimony of one of Metso’s engineers, Mr. Walter Marks, who testified that the upper head bushing “would seem to leave a lot to be desired.” (Joint Ex. 65, Marks Dep., 158: 7-13). Mr. Marks said: “Compared to the eccentric speed, the crusher operational speed when it’s spinning, it’s still moving very fast.” (Id.). The only other

piece of evidence Excel points to is the fact that Metso eventually added additional anti-spin devices to its MP800 crusher line. (Excel Br. Opp. Mot. S.J. [Dkt. #299] at 6-8).

The above evidence, drawing all inferences in favor of Excel, would only allow Excel to, at best, prove clearly and convincingly that the upper head bushing is incapable of adequately slowing head rotation during “no load” operation in the MP800, and perhaps in Metso’s other commercial embodiments of the ‘681 patent. However, such a finding would not warrant a finding that Claims 1 and 6 of the ‘681 patent are inoperable, or that it is impossible for a crusher built according to the ‘681 patent to utilize an upper head bushing that adequately slows head rotation.

The degree to which the bushing is effective as an anti-spin device undoubtedly depends to some degree on the size and power of the machine in which it is utilized. The fact that the particular commercial embodiments of the ‘681 patent built by Metso are such that the bushing does not adequately slow head rotation does not mean that the patent itself is inoperable. Patents are held inoperable when the challenged claim is shown to be demonstrably impossible. For example, in *EMI Group*, the claims recited a “vapor-induced explosion mechanism” which utilized vapor pressure in order to cause a fuse to blow. 268 F.3d at 1349. At trial, an expert testified that, through exhaustive studies, he had determined that “a fuse simply cannot explode due to vapor pressure.” *Id.* The court of appeals thus upheld the trial court’s finding that the patent was inoperable. Similarly, in *Process Control*, the court of appeals found a patent inoperable because a claim in the patent

embodied a method that was scientifically unsound because it violated the principle of the conservation of mass. 190 F.3d at 1359. These cases stand in stark contrast to the facts presented in the case before the court.

Excel has not produced any evidence to justify that a reasonable jury could find, by clear and convincing evidence, that the anti-spin apparatus disclosed in the '681 patent is incapable of adequately slowing head rotation during "no load" operation. Therefore, the court is obliged to find that, even if the disputed terms regarding upper head bushing were construed in the manner advanced by Excel, Excel could still not succeed on its inoperability defense. The court, therefore, awards summary judgment to Metso as to Excel's inoperability defense.

### **III. Enablement**

Metso next moves for summary judgment on Excel's claim that the '681 patent fails to satisfy the "enablement" requirement found in 35 U.S.C. § 112 . "A patent is enabling when the disclosures made in the patent application are sufficient to allow a person skilled in the art to make and use the claimed invention." *Christianson v. Colt*, 870 F.2d 1292, 1299 (7th Cir. 1989). Part of this requirement is that such a person must be able to make and use the invention without "undue experimentation." *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988).

In determining whether the amount of experimentation required to practice the invention is "undue" (thus rendering the patent invalid for failure to meet the "enablement requirement"), the court should consider the various factors identified by the Federal Circuit in *In Re Wands*, 858 F.2d at 737. The *Wands* factors – which

are illustrative, not mandatory, the ultimate determination depending on the relevant facts – are as follows:

- (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

*Id.*

Excel's only argument regarding its enablement defense is that there is a material factual question as to whether the length of time it would take to reverse engineer one of Metso's crushers constitutes "undue experimentation." Excel cites to the fact that Metso's expert, Dr. James Salmon, stated that it would take between 38 to 48 months to properly reverse engineer a Metso crusher. Excel maintains Metso should not be awarded summary judgment on Excel's enablement defense because "[a] jury must decide if 38 to 48 months of work to develop a competing crusher is 'undue.'" (Excel Br. Opp. Mot. S.J. [Dkt. #299] at 6-8).

Excel's argument makes no sense. Indeed, there is no logical connection between how long it would take one of ordinary skill in the art to reverse engineer one of Metso's crushers based on the '681 patent<sup>6</sup> and whether one of ordinary skill in the art can practice the '681 patent without "undue experimentation." This would only be relevant if: 1) the only way to practice the '681 patent was to clone one of Metso's commercial embodiments of the patent; and 2) if the least onerous way to

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<sup>6</sup> Metso's commercial embodiments of the '681 patent are the HP400, HP800, MP800, and MP1000.

legitimately clone one of those crushers was through reverse engineering. The accuracy of the second prong is irrelevant because the first prong is demonstrably false. The fact that Metso has created certain commercial embodiments of the '681 patent in no way means that one of ordinary skill in the art could not practice the '681 patent unless they made crushers identical to Metso's.

As Metso points out, each of Metso's various commercial embodiments of the '681 patent are of different sizes, so they each have their own dimensions. There is no requirement that someone practicing the '681 patent make a crusher with the same part sizes and tolerances Metso chooses to use for its crushers based on the '681 patent. Excel in fact concedes as much, but retorts that Metso is the party claiming that its trade secret dimensions and tolerances information have economic value "because competitors who wish enter with [sic] market *with . . . a competing crusher . . . can not do so quickly and cheaply without [Metso's] trade secret dimensions and tolerances*]. (Defs. Resp. to Metso's SOF [Dkt. #347] 89A). This too is a complete non-sequiter. First, the fact that a party would need Metso's specific dimensions and tolerances in order to make a competing crusher quickly and cheaply does not mean that a party without those dimensions and tolerances could not practice the '681 patent without "undue experimentation." Secondly, and more importantly, the fact that Metso takes a certain position on its trade secret claim (a claim it will have to prove at trial) is not evidence with respect to Excel's enablement defense.

To survive summary judgment, Excel must show that it has relevant evidence, and that a reasonable jury could conceivably find that such evidence clearly and convincingly demonstrates that one of ordinary skill in the art could not practice the ‘681 patent without “undue experimentation.” Excel has produced no evidence that could even begin to support such a proposition. At best, Excel’s evidence could possibly demonstrate that one could not clone Metso’s crushers without undue experimentation; however, proving such would be pointless, for that is an irrelevant matter having no bearing on the question of enablement. See *CFMT, Inc. v. Yieldup Int’l Corp.*, 349 F.3d 1333, 1338 (Fed. Cir. 2003) (“Title 35 does not require that a patent disclosure enable one of ordinary skill in the art to make and use a perfected, commercially viable embodiment absent a claim limitation to that effect.”); *Cedarapids, Inc. Nordberg, Inc.*, 1997 WL 452801 \*3 (Fed. Cir. 1997) (“[W]e have never held that a patent must disclose information sufficient to manufacture a commercial product incorporating the invention.”). Accordingly, Metso is entitled to summary judgment on Excel’s enablement defense.

#### **IV. Best Mode**

Metso next moves for summary judgment on Excel’s claim that the ‘681 patent fails to satisfy the “best mode” requirement found in 35 U.S.C. § 112 . If a patent applicant develops a specific instrumentality or technique which is recognized at the time of filing as the best mode of carrying out the invention, then the “best mode” requirement imposes an obligation to disclose that information in the patent application. *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1532 (Fed. Cir.

1987). “[D]etermining compliance with the “best mode” requirement is a two-prong inquiry[;] [f]irst the court must determine whether, at the time the patent application was filed, the inventor possessed a best mode for practicing the claimed invention.” *Ajinomoto Co., Inc. v. International Trade Commission*, 597 F.3d 1267, 1273 (Fed. Cir. 2010). If the inventor did have a subjective preference for one mode over all others, then the court must determine whether the inventor “concealed” the preferred mode from the public. *Id.* “The first prong is highly subjective; it focuses on the inventor’s own personal preferences as of the application’s filing date.” *Id.*

Excel’s “best mode” argument is that prior to applying for the ‘681 patent, Metso had a prototype that possessed many of the features disclosed in the ‘681 patent, and that Metso used this prototype to test the claims of the ‘681 patent. (Excel Br. Opp. Mot. S.J. [Dkt. #299] at 12). This prototype had certain dimensions and tolerances (as any machine anywhere must have) for its various features. Excel goes on to point out that no dimensions or tolerances are disclosed in the ‘681 patent application. Excel further points out that Metso employees and experts have testified that dimensions and tolerances are critical to the proper construction and function of the crushers that embody the ‘681 patent. (*Id.*). Excel thus extrapolates that:

because Metso and its inventors had selected dimensions and tolerances after years of work for the prototype and pre-application crushers installed at customer locations, and Metso employees have testified that these dimensions and tolerances are critical to practicing the “invention” claimed by the '681 Patent, a reasonable jury could find in light of the clear and convincing standard that Metso had a best mode at the time of application.

(Id. at 12-13).

However, this quoted language misconstrues the facts. Excel states that “Metso employees have testified that *these* dimensions and tolerances are critical to *practicing the ‘invention’ claimed by the ‘681 Patent.*” First, the only dimensions and tolerances Metso’s employees have identified as “critical” are those found in the commercial embodiments of the ‘681 patents. Metso has never claimed, and Excel has never produced any evidence to support the notion, that the dimensions and tolerances presently found in the commercial embodiments of the ‘681 patent are the same as those that were in the pre-application prototype. Secondly, Metso’s employees identified the dimensions and tolerances in the commercial embodiments of the ‘681 patent as “critical” to the operation of those particular crushers. Metso has never claimed, and Excel has never produced any evidence to support the notion, that the dimensions and tolerances in either the pre-application prototype or in the commercial embodiment of the ‘681 patent are necessary to *practice the invention claimed by the ‘681 patent.*

Ultimately, Excel has not produced any evidence supporting a finding that the inventors’ of the ‘681 patent had a subjective preference for one mode over all others. Excel’s argument is that the prototype contained dimensions and tolerances which should have been disclosed. This would only be true if the inventors believed that those dimensions and tolerances manifested the best mode for practicing the ‘681 patent. Nothing Excel has produced would allow a jury to make such a finding though. Arguably, such a finding could conceivably be justified if Excel could show

that the dimensions and tolerances in the prototype are the same as those in the present day MP1000. However, Excel has not produced any evidence demonstrating that to be true or even likely to be true. Further, even showing that the dimensions and tolerances in the prototype and the present day MP1000 are the same would not, in reality, justify a finding by clear and convincing evidence that those dimensions and tolerances were considered, *at the time the application was filed*, to be the best mode for practicing the '681 patent. At best, it would prove that they turned out to be the best mode for practicing the '681 patent.

Excel claims that Metso's failure to disclose the dimensions and tolerances in its prototype MP1000 was in violation of the "best mode" requirement. However, the '681 patent is not directed to any specific size or power rating. At the end of the day, the only question the court need resolve as to "best mode" is whether Excel has shown a material factual question as to its ability to demonstrate by clear and convincing evidence that the inventors of the '681 patent had a subjective belief as to the best mode for practicing the '681 patent. From the record before the court, Excel has not produced any evidence that would allow such a finding, irrespective of the evidentiary standard applied. Therefore, Metso is entitled to summary judgment as to Excel's "best mode" defense.

## **V.      Obviousness**

Excel has also alleged that the '681 patent is invalid under 35 U.S.C. § 103(a). Metso has moved for summary judgment as to this defense as well.

According to 35 U.S.C. § 103(a):

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Id. One of the rationales underlying the invalidating of patents that are “obvious” is that a “patent for a combination which only unites old elements with no change in their respective functions . . . obviously withdraws what is already known into the field of its monopoly and diminishes the resources available to skillful men.” *Great Atlantic & Pacific Tea Co. v. Supermarket Equip’t Corp.*, 340 U.S. 147, 152 (1950) (quoted in *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007)). “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l*, 550 U.S. at 416.

In applying the statutory language of 35 U.S.C. § 103(a), courts are to follow the framework set out by the Supreme Court in *Graham v. John Deere Co. of Kansas City*, 338 U.S. 1 (1966). Under the *Graham* framework:

the scope and content of the prior art are ... determined; differences between the prior art and the claims at issue are ... ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

*Graham*, 383 U.S. 17-18. Each of the four factors set out in *Graham* – 1) scope and content of the prior art; 2) difference between prior art and claimed invention; 3) level

of ordinary skill in the art; and 4) objective evidence of nonobviousness (i.e., “secondary considerations”) – present questions of fact. *Environmental Designs, Ltd. v. Union Oil Co. of California*, 713 F.2d 693, 695 (1983). “Obviousness,” however, “is a conclusion of law based upon [those] factual determinations.” *Id.*

Metso has not presented any meaningful argument as to the first three *Graham* factors. Metso has presented argument as to the fourth factor, the “secondary considerations.” However, as previously noted, secondary considerations present factual inquiries (as do the balance of the *Graham* factors). *Para-Ordnance Mfg., Inc. v. SGS Importers Int'l, Inc.*, 73 F.3d 1085, 1088 (Fed. Cir. 1995). The essence of Metso’s motion is that Excel’s obviousness defense is based on the testimony and report of its expert, Dr. William Farrow, and Metso maintains that Dr. Farrow’s report is not sufficient to create a material factual question as to obviousness.

Metso criticizes numerous aspects of Dr. Farrow’s report. Metso criticizes Dr. Farrow for relying on prior art that Metso maintains teaches away from the claimed inventions in the ‘681 patent. However, “what the prior art teaches and whether it teaches toward or away from the claimed invention . . . is a determination of fact.” *Id.* Metso also criticizes Dr. Farrow’s conclusions as to the obviousness of the ‘681 patent’s claims, and his basis for those conclusions. To the extent that Metso disagrees with Dr. Farrow’s conclusions as to the obviousness of the ‘681 patent’s claims, it remains free to test his conclusions and the basis therefor on cross-examination. Likewise, to the extent that Metso disagrees with Dr. Farrow’s

opinion that “the obviousness discussed for Claims 1, 2, and 3 of [the ‘681 patent] would all apply to the obviousness for Claim 5,” Metso is free to challenge Dr. Farrow as to the validity and basis for that opinion on cross-examination. Finally, Metso’s arguments that Dr. Farrow’s conclusions are “largely contradicted by the objective secondary considerations,” (Metso’s Br. Supp. Mot. S.J. [Dkt. #249] at 13), are not proper for summary judgment, as determinations regarding the secondary considerations remain within the province of the jury.

To be clear, although Metso challenges the admissibility of Dr. Farrow’s testimony and report, the court is not ruling definitively that such evidence is admissible. Rather, the court finds that Metso has not established that such evidence is not admissible. The court is mindful that “[g]iven the ‘liberal thrust’ of the federal rules it is particularly important that the side trying to defend the admissibility of evidence be given an adequate chance to do so.” *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 739 (3d Cir.1994). By folding its arguments for exclusion of Dr. Farrow’s testimony and report into its motion for summary judgment on numerous defenses, and by challenging Dr. Farrow’s testimony and report on issues not appropriately raised at the summary judgment stage, Metso has not afforded Excel an adequate opportunity to defend the admissibility of Dr. Farrow’s report. In the event Metso believes that there are sufficient legal (not factual) grounds to exclude (not discount) Dr. Farrow’s testimony and report, Metso remains free to test those legal arguments in a motion to exclude. Doing so will provide Excel the opportunity to focus on any actual legitimate challenges to Dr. Farrow’s testimony and report,

instead of having to incorporate such defense into its defense against illegitimate challenges as well as the defense of its other affirmative defenses.

Although it may be reasonably said that the parties have considerably over-litigated this case, it also appears that at certain points during the litigation (such as during claim construction, and in preparing their support documents for summary judgment in accordance with the court's instructions) the parties have worked diligently to narrow the issues and effect efficiency and judicial economy. In the event Metso finds it appropriate to file a motion to exclude Dr. Farrow's testimony and report, the court would encourage the parties to work together to focus on developing the record and arguments as to the core dispositive issues to such a motion.<sup>7</sup>

Many of the issues pertaining to obviousness require factual determinations. Issues as to the credibility of Dr. Farrow's conclusions, his interpretation of the teachings of the prior art, and the degree to which his opinions on obviousness are contradicted by secondary considerations – these are all issues properly dealt with at trial. As for any unresolved arguments regarding the legal insufficiency of Dr. Farrow's testimony and report, these are issues that are best left for further articulation and clarification in a motion to exclude.

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<sup>7</sup> For example, Metso faults Dr. Farrow for not providing a full claim chart in support of his analysis. Excel responds by citing to a district court case from Pennsylvania which held that a claim chart is not necessarily required.

If providing a claim chart would aid the parties, or the court, in understanding and clarifying the issues, then such a chart should be provided, regardless of what a district court in Pennsylvania held.

## CONCLUSION

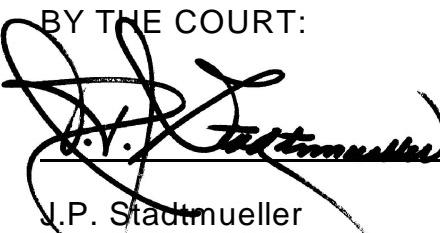
Excel has admitted to infringing the valid claims of the '681 patent, but has raised numerous affirmative defenses in response to Metso's claim of patent infringement. Metso moved for summary judgment as to each of those defenses. For the reasons articulated above, Metso is entitled to summary judgment as to the following of Excel's defenses: laches, equitable estoppel, acquiescence, waiver, inoperability, enablement, and best mode. The basis for Metso's motion for summary judgment as to Excel's obviousness defense is the exclusion of Excel's expert. However, the court will not entertain rendering such a ruling without a sharpening of the legal issues involved, and without providing Excel an adequate opportunity to develop its responses. Thus, on the state of the record before the court, Metso is not presently entitled to summary judgment as to Excel's obviousness defense.

Accordingly,

**IT IS ORDERED** that Metso's Motion for Summary Judgment of Validity and Enforceability of the '681 Patent (Docket #247) be and the same is hereby **GRANTED** in part, and **DENIED** in part.

Dated at Milwaukee, Wisconsin, this 13th day of May, 2010.

BY THE COURT:



J.P. Stadtmauer  
U.S. District Judge